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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/588,462	06/06/2000	John Philipsson	027557-049	9176

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EXAMINER

TRAN, CON P

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 07/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/588,462

Applicant(s)

PHILIPSSON ET AL.

Examiner

Con P. Tran

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-3, 8, and 10-12** are rejected under 35 U.S.C. 102(b) as being anticipated by McLaughlin et al. U.S. Patent 6,263,078.

Regarding **claims 1-2, 8**, McLaughlin et al. teaches a loudspeaker volume range control arrangement (38) for a telephone having a loudspeaker (26) and a microphone (28; see Fig. 2, and respective portions of the specification), comprising means for controlling the volume range (38) of the loudspeaker in dependence on the estimated distance between the loudspeaker and the microphone (col. 2, lines 4-9; col. 11, lines 61-64) of the telephone based on the signals of the loudspeaker and microphone of the telephone (i.e. speakerphone); and an adaptive filter 14 (col. 4, lines 35-51).

Regarding **claim 3**, McLaughlin et al. further teaches wherein the adaptive filter arrangement is inherently an FIR filter (col. 6, lines 20-24).

Regarding **claims 10-12**, method claims 10-12 are similar to claims 1-3 except for being couched in method terminology; such methods would be inherent when the structure is shown in the reference.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 4-7** are rejected under 35 U.S.C. 103(a) as being unpatentable over McLaughlin et al. U.S. Patent 6,263,078.

Regarding **claims 4-7**, McLaughlin et al. teaches the loudspeaker volume range control arrangement as claimed in claim 2. However, McLaughlin et al. reference does not explicitly disclose wherein the largest absolute value of the adaptive filter coefficients is determined in order to estimate the distance between the microphone and the loudspeaker. McLaughlin et al. discloses the supplementary adaptive filter 44 utilizes the output of the adaptive filter 14, i.e., the first predicted-echo signal, to generate a second predicted-echo signal in accordance to a modified version of the estimated echo response of the adaptive filter 44. Other utilizations of adaptive filter coefficients such as largest absolute value, sum or average, weighted average; and

ratio or difference between the energies of the loudspeaker are well known in the art of adaptive filtering. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate such teaching in order to provide flexibility and universal

Regarding **claims 13-16**, method claims 13-16 are similar to claims 4-7 except for being couched in method terminology; such methods would be inherent when the structure is shown in the references.

5. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over McLaughlin et al. U.S. Patent 6,263,078 in view of Romesburg (5,796,819).

Regarding **claim 9**, McLaughlin et al. teaches the speakerphone system 36 (Fig. 2) as claimed in claim 8. However, McLaughlin et al. reference does not explicitly disclose a motor vehicle fitted with a telephone as claimed. McLaughlin et al. teaches the system 36 may be incorporated into a personal computer for a full-duplex speakerphone application (col. 4, lines 39-41). Thus one of ordinary skill would have been motivated to seek a telephone embodiment in order to provide an actual working arrangement taught by McLaughlin et al. Such embodiments would have been any known embodiments such as one of Romesburg in the same field of endeavor.

Romesburg teaches (see Fig. 8, 9, and respective portions of the specification) a cellular phone mounted in a conventional vehicle (62; col. 14, lines 21-26) in order to provide hand-free operation (see col. 1, lines 6-9).

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to apply such teaching of Romesburg into McLaughlin et al. in order to provide hand-free operation, as suggested by Romesburg in col. 1, lines 6-9.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Con P. Tran, whose telephone number is (703) 305-2341. The examiner can normally be reached on M - F (8:30 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service Office at telephone number (703) 306-0377.

cpt CPJ
June 30, 2003


FORESTER W. ISEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600